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## PATENT ABSTRACTS OF JAPAN

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RESEARCH LABORATORIES INC**(72) Inventor: **PFISTER HANSPETER  
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GROSS MARKUS H**(54) **METHOD AND DEVICE FOR RENDERING  
GRAPHIC OBJECT**

## (57) Abstract:

**PROBLEM TO BE SOLVED:** To obtain a method and a device for rendering a graphic object capable of converting the graphic object into a surface element for any object.

**SOLUTION:** A pipeline is provided with a memory to store the shape of the surface and shade attributes of the object. Attributes are arranged in an octree in a memory. The octree is provided with nodes arranged at plural levels, each node stores plural zero-dimensional sets consisting of n elements, the set locally approximates the shape and the shade attributes of a part of the surface of the graphic object and the sets consisting of n elements are provided with sampling resolution of an image space. Plural parallel processing pipelines are coupled with a memory. The pipeline projects the shape and the shade attributes of the octree on an image surface with a selected direction by traversing the sets consisting of n elements of the

nodes of the octree from the lowest resolution level to the highest one.

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